



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

4-19

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/540,400

06/23/2005

Joichiro Ezaki

123600

9720

25944 7590 01/04/2007
OLIFF & BERRIDGE, PLC
P.O. BOX 19928
ALEXANDRIA, VA 22320

EXAMINER

YOHA, CONNIE C

ART UNIT

PAPER NUMBER

2827

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

01/04/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/540,400

Applicant(s)

EZAKI ET AL.

Examiner

Connie C. Yoha

Art Unit

2827

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 13, 15, 16 and 19-22 is/are rejected.
- 7) ☐ Claim(s) 5-12, 14, 17-18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 6/23/05.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____

- 5) ☐ Notice of Informal Patent Appeal
- 6) ☐ Other: _____



CONNIE C. YOHA
PRIMARY EXAMINER

DETAILED ACTION

1. This office acknowledges receipt of the following items from the Applicant:

Papers submitted under 35 U.S.C. 119(a)-(d) have been placed of record in the file.

Information Disclosure Statement (IDS) filed on 6/23/05 was considered.
2. Claims 1-22 are presented for examination.

DOUBLE PATENT REJECTION

3. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, and 17-22 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1, 14, 25, 27-32 of U.S. Patent No.6996001. Although the conflicting claims are not identical, they are not patentably distinct from each other because of the reasons set forth below.

Claims 13, 13, 15-16, and 19-22 are rejected in view of claim 1, 16, 22, 25, 27-32, and 35 of the 6996001 patent. For example, similar to the claimed invention, claims 1, 25 and 27 of the patent recites " a magnetic memory device comprising plurality of magneto-resistance effect elements including a magnetic sensitive layer whose magnetization direction changes according to an external magnetic field; inherent plurality of write lines to which a write current is supplied to apply the external magnetic field to the magnetic layer; a write current drive circuit (equivalent to the current direction control circuits of the instant invention, although only one is claimed as suppose to plurality of them. However, since each of the write current circuit is disposed to control the direction of the write current in the write line and since there are plurality of write lines are within the device, it would be obvious that plurality of these write current drive circuit would also be included, one for each of the write line) configured to control the direction of the write current in the write line; and a current amount control section (equivalent to a constant current circuit of the instant invention) configured to control the amount of the write current in said write line to a constant value. Although, claim 1, does not disclose that the constant current circuit being shared among the plurality of current direction control circuits. However, claim 25 or claim 27 discloses that the plurality of current direction control circuits comprise one

through eight transistors, whereby the eighth transistor has a collector connected to emitters of the third and fourth transistors in common, has an emitter, grounded through the second current limiting resistor, and has a base to which a constant voltage is input selectively (see patent figure 5, Q8, Q3 and Q4 for clearer understanding). Such configuration of the circuitry is can be obviously seen that the constant current circuit is being shared among the plurality of current direction control circuits.

Allowable Subject Matter

4. Claims 5-12, 14, and 17-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record does not show in combination with other features, the limitation of a magnetic memory device having a circuit selector switch for each current direction control circuit so as to select one of the pluralities of current direction control circuits. Prior art also does not disclose wherein the base terminal of the fifth transistor is connected to the collector terminal of the third transistor, and the collector terminal of the fifth transistor is connected to the base terminal of the second transistor; Prior art does not further disclose a second constant current circuit being shared among the plurality of current direction control circuits, and making the sum of currents flowing through the fifth transistor and the sixth transistor constant. Prior art does not also teach wherein the data signal is inputted into the base terminal of either the third transistor or the fourth transistor, and an inversion signal of the data signal is inputted

into the base terminal of the other transistor. Prior art does not disclose the magnetoresistive device includes a laminate which includes the magnetic sensitive layer and through which a current flows in a direction perpendicular to a laminate surface; and a toroidal magnetic layer, which is disposed on one surface of the laminate so that its direction along the laminate surface is its axial direction.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicants' disclosure. Nagashima (6785158) and Gogl et al (6847568) disclose a magnetic memory device and it's control circuits.

6. When responding to the office action, Applicants' are advised to provide the examiner with the line numbers and page numbers in the application and/or references cited to assist the examiner to locate the appropriate paragraphs.

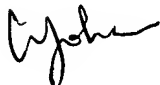
7. A shortened statutory period for response to this action is set to expire 3 (three) months and 0 (zero) day from the date of this letter. Failure to respond within the period for response will cause the application to become abandoned (see MPEP 710.02 (b)).

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to whose telephone number is (571) 272-1799. The examiner can normally be reached on Mon. - Fri. from 8:00 A.M. to 5:30 PM. The examiner's supervisor, Amir Zarabian, can be reached at (571) 272-1852. The fax phone number for this Group is (703) 872-9306. Any inquiry of a general nature or

Art Unit: 2827

relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-0956.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov> should you have questions on access to the Private Pair system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



C. Yoha

December 2006



Connie C. Yoha

Art Unit 2827

**CONNIE C. YOH
PRIMARY EXAMINER**